



Physical Sciences-Based Frontiers in Oncology

Physical Sciences in Oncology Centers (RFA-CA-09-009) Pre-Application Meeting

PS-OC RFA Components

*William H. Natcher Conference Center
National Institutes of Health
January 23, 2009
Bethesda, Maryland*

Key Dates

physics.cancer.gov

- Pre-Application Meeting Date: **January 23, 2009**
- Letters of Intent Receipt Date: **February 13, 2009**
- Application Receipt Date: **March 13, 2009**
- Peer Review Date: **Late June/Early July 2009**
- Earliest Anticipated Start Date: **September 2009**

Email Questions to nci.physics@mail.nih.gov

Letter of Intent (LOI)

physics.cancer.gov

- **Due Date: February 13, 2009**
- **Highly encouraged but not required**
- **Electronic preferred (Word or PDF)**
- **Standard recommended elements:**
 - ❑ Description title of proposed research;
 - ❑ Names, addresses, and telephone numbers of Principal Investigator (PI);
 - ❑ Names of other key personnel;
 - ❑ Participating institutions;
 - ❑ Number and title of this funding opportunity announcement
- **Additional recommended elements:**
 - ❑ **Provide a brief description of your PS-OC organizing framework (3-5 sentences)**
 - ❑ **Include Relevant Expertise (s) and Keyword(s)**

Email Questions to nci.physics@mail.nih.gov

Application & Submission Information

physics.cancer.gov

RFA-CA-09-009 will be submitted in paper format.

Use the most current PHS 398 research grant application instructions (<http://grants.nih.gov/grants/funding/phs398/phs398.html>)

and instructions/forms modified as outlined below for:

- Table of Content (PHS 398 Form Page 3)
- Budget (PHS 398 Form Pages 4 and 5)
- Research Plan (Items 2-5, previously known as “Sections A-D”)

This multi-project application should be assembled and paginated as one complete document.

Email Questions to nci.physics@mail.nih.gov

Application & Submission Information

physics.cancer.gov

Table of Contents (PHS 398 Form Page 3)

A more comprehensive table of contents is needed for a multi-project application to account for the modified sections of the Research Plan:

■ N1. Overview of PS-OC

- Include description of the proposed physical science-based overarching organizing framework.

■ N2. Research Projects

■ N3. Administrative Units

- Individual Center Administration
- Center Advisory Committee (CAC)
- PS-OCs Steering Committee (PSC)

■ N4. Shared Research Resource Cores

■ N4. Outreach and Dissemination Unit

■ N4. Education and Training Unit

Email Questions to nci.physics@mail.nih.gov

Supplement "Sample" Table of Contents

physics.cancer.gov

Table of Contents (PHS 398 Form Page 3)

<http://physics.cancer.gov/RFA/RFA-CA-09-009-FAQs.asp>

****This sample form, adapted from the traditional PHS 398 Form Page 3, supplement the written instructions listed in Section IV.2 of RFA-CA-09-009. Instructions listed in red should not be included in final submissions****

Program Director/Principal Investigator (Last, First, Middle):
The name of the program director/principal investigator must be provided at the top of each printed page and each continuation page.

TABLE OF CONTENTS (Recommended)

	Page Numbers
Face Page.....	1
Description, Project/Performance Sites, Senior/Key Personnel, Other Significant Contributors, and Human Embryonic Stem Cells.....	2
Table of Contents.....	
Detailed Budget for Initial Budget Period.....	
Budget for Entire Proposed Period of Support.....	
Budgets Pertaining to Consortium/Contractual Arrangements.....	
Biographical Sketch – Program Director/Principal Investigator (Not to exceed four pages each).....	
Other Biographical Sketches (Not to exceed four pages each – See instructions).....	
Resources.....	
Checklist.....	
Research Plan.....	
N1. Overall Description of PS-OC	
PS-OC Organizing Framework.....	
N2. Individual Center Projects	
Project XXX: Title of Project.....	
Cover Page (Form Page 1 & 2).....	
Detailed Budget for Initial Budget Period (Form Page 4).....	
Budget for Entire Proposed Period of Support (Form Page 5).....	
Biographical Sketch.....	
Other Biographical Sketches.....	
Research Plan.....	
I. Project Overview.....	
ii. Specific Aims.....	
iii. Background and Significance.....	
iv. Preliminary Studies; and.....	
v. Research Design and Methods.....	
References Cited.....	
Protection of Human Subjects.....	
Inclusion of Women and Minorities.....	
Vertebrate Animals.....	
Consortium/Contractual Arrangements.....	
Letters of Support (e.g. Consultants).....	
N3. Center Organization and Infrastructure	
Cover Page (Form Page 1 & 2).....	
Detailed Budget for Initial Budget Period (Form Page 4).....	
Budget for Entire Proposed Period of Support (Form Page 5).....	
Individual Center Administration.....	
Center Advisory Committee (CAC).....	
PS-OCs Steering Committee (PSC).....	

Page ____

Program Director/Principal Investigator (Last, First, Middle):
The name of the program director/principal investigator must be provided at the top of each printed page and each continuation page.

TABLE OF CONTENTS (Recommended) [continued]

	Page Numbers
N4. Other Critical Resources and Capabilities (cont'd)	
Shared Research Resources Core XXX: Title of Core.....	
Cover Page (Form Page 1 & 2).....	
Detailed Budget for Initial Budget Period (Form Page 4).....	
Budget for Entire Proposed Period of Support (Form Page 5).....	
Biographical Sketch.....	
Description of Component and Operations.....	
Education and Training Unit.....	
Cover Page (Form Page 1 & 2).....	
Detailed Budget for Initial Budget Period (Form Page 4).....	
Budget for Entire Proposed Period of Support (Form Page 5).....	
Biographical Sketch.....	
Description of Component and Operations.....	
Outreach and Dissemination Unit.....	
Cover Page (Form Page 1 & 2).....	
Detailed Budget for Initial Budget Period (Form Page 4).....	
Budget for Entire Proposed Period of Support (Form Page 5).....	
Biographical Sketch.....	
Description of Component and Operations.....	
14. References Cited.....	
15. Consortium/Contractual Arrangements.....	
16. Letters of Support (e.g., Consultants).....	
17. Resource Sharing Plan (s).....	
Appendix (Five identical CDs).....	

Check if Appendix is Included

Page ____

Highly recommended that applications follow this format style.

Email Questions to nci.physics@mail.nih.gov

Application & Submission Information

physics.cancer.gov

Research Plan (PHS 398 Items 2-5)

N1. Overall Description of PS-OC (up to 30 pages suggested)

N2. Individual Center Projects (limited to 15 pages per project)

N3. Center Organization & Infrastructure (up to 25 pages total suggested)

N4. Other Critical Resources and Capabilities (up to 20 pages total suggested)

- Shared Research Resource Cores
- Outreach and Dissemination Unit
- Education and Training Unit

Email Questions to nci.physics@mail.nih.gov

Section N1. Overall Description of PS-OC

physics.cancer.gov

Research Plan (Section N1.)

- Propose an overarching organizing framework for your Center.
- Rationale how the organizing framework will address major questions and barriers in cancer and generate new fields of research that will lead to exponential progress against cancer.
- Brief description of each project (3 minimum/5 maximum)
 - Including scientific integration with the proposed organizing framework and a rationale for how each project will help generate sufficient results to drive the development of new bodies of knowledge in cancer based on the proposed organizing framework.

Email Questions to nci.physics@mail.nih.gov

Section N1. Overall Description of PS-OC

physics.cancer.gov

Research Plan (Section N1.)

- Summary of strategies to develop Pilot and Trans-Network projects that will enhance your Center's efforts to advance its organizing framework.
- Brief description of infrastructure support, including shared resources, PS-OC administrative, CAC, PSC, modules for training and education, and outreach programs to inform cancer and physical sciences communities.
- No more than 30 pages for this Section is suggested.

Email Questions to nci.physics@mail.nih.gov

Section N2. Individual Center Projects

physics.cancer.gov

Each application should consist of **three to five** component Projects

The description of each Project must contain the following elements:

- Project Cover Page (PHS 398 Form Pages 1 and 2) containing Component Title, Component PI, Component Summary, and a list of Key Personnel (listing percent of effort of each individual)
- Budget pages with justification (PHS Form Pages 4 and 5)
- Biographical Sketches
- Research Plan (**limited to 15 pages per project**)
 - i. Project Overview -- including the rationale and description of how it fits into overarching organizing framework
 - ii. Specific Aims
 - iii. Background and Significance
 - iv. Preliminary Studies
 - v. Research Design and Methods

Email Questions to nci.physics@mail.nih.gov

Section N3. Center Organization & Infrastructure

physics.cancer.gov

- **Cooperative Agreement (CA) Mechanism (NOT A GRANT)**
 - Substantial NIH programmatic involvement with the awardees that is above & beyond the normal stewardship role in awards (Section VI.2A)

- **Administrative Units to assist PI in carrying out CA conditions**
 - PI encouraged to propose a project manager for the center

- **Collectively provide oversight and facilitate interactions**
 - With NCI program staff
 - Within individual center
 - Day-to-day operations
 - Center Advisory Committee (CAC)
 - Pilot projects
 - Within PS-OC Network
 - PS-OC Steering Committee (PSC)
 - Trans-Network projects
 - Outside PS-OC Network
 - Outreach and Dissemination Unit

Email Questions to nci.physics@mail.nih.gov

Section N3: Budget Justification

physics.cancer.gov

■ Description should include justification of support activities including:

- The organization of the leadership structure, including **CAC** and **PSC**;
 - **CAC structure:** Mechanisms and strategies to solicit, develop, and approve pilot projects within individual PS-OC (a minimum of 5% of total center direct costs);
 - **PSC participation:** Mechanisms to carry out (i.e., exchange of expertise, personnel, materials, and/or equipment) PSC approved collaborative trans-Network projects within the PS-OCs Network (a minimum of \$100K in direct);

*****Names of External Scientific Advisors must NOT be provided in the application
External Scientific Advisors should also NOT be contacted prior to funding*****

- Support of additional administrative activities of the PS-OC including, but not limited to, progress reports, site visits, travel for the PI and team leaders to annual PS-OCs meetings, and monthly meetings and teleconferences, including organization and participation in CAC and PSC.
- Participation in program evaluation activities, meaning that each post PS-OC awardee and the entire program will be periodically evaluated by the NCI and that applicants should acknowledge their readiness to participate in and facilitate such evaluation;

Email Questions to nci.physics@mail.nih.gov

Section N4. Other Critical Resources

physics.cancer.gov

Program Director/Principal Investigator (Last, First, Middle):

The name of the program director/principal investigator must be provided at the top of each printed page and each continuation page.

TABLE OF CONTENTS (Recommended) [continued]

	<i>Page Numbers</i>
N4. Other Critical Resources and Capabilities (cont'd)	_____
Shared Research Resources Core XXX: Title of Core	_____
Cover Page (Form Page 1 & 2)	_____
Detailed Budget for Initial Budget Period (Form Page 4)	_____
Budget for Entire Proposed Period of Support (Form Page 5)	_____
Biographical Sketch	_____
Description of Component and Operations	_____
Education and Training Unit	_____
Cover Page (Form Page 1 & 2)	_____
Detailed Budget for Initial Budget Period (Form Page 4)	_____
Budget for Entire Proposed Period of Support (Form Page 5)	_____
Biographical Sketch	_____
Description of Component and Operations	_____
Outreach and Dissemination Unit	_____
Cover Page (Form Page 1 & 2)	_____
Detailed Budget for Initial Budget Period (Form Page 4)	_____
Budget for Entire Proposed Period of Support (Form Page 5)	_____
Biographical Sketch	_____
Description of Component and Operations	_____

**Each Application
must have at
least these three
(more if needed)
components.**

Email Questions to nci.physics@mail.nih.gov

Section N4. Other Critical Resources

physics.cancer.gov

Shared Research Resources Cores:

- One or more shared technical resources cores (up to 3, as needed)
- Shared resources must benefit the Center (*i.e.*, more than one Project) and be accessible to PS-OC Network
- Shared resources must not duplicate analogous resources already established in the applicant institutions (although supplemental funding to such existing resources may be requested)
- Examples: computation, cell lines, fabrication, mouse models, synthesis

Email Questions to nci.physics@mail.nih.gov

Section N4. Other Critical Resources

physics.cancer.gov

Outreach and Dissemination Unit:

- Disseminate and increase awareness of concepts, capabilities, and results of PS-OC to both physical sciences and cancer research communities through:
 - Public seminar series
 - Sponsor focused workshops
 - Website
- Mechanisms to bridge and develop external collaborations:
 - Facilitate external collaborations outside of PS-OC Network as a result of outreach activities

Education and Training Unit:

- Provide training to examine cancer-related problems using physical sciences and engineering approaches including:
 - Creating local and remote training modules
 - Graduate programs and fellowships
 - Courses, seminars, and certifications
- Mechanisms to exchange personnel
 - Promote collaborations and training within PS-OC Network institutions as needed
 - Includes both 1) graduate and postdoctoral trainees and 2) junior and senior investigators

Email Questions to nci.physics@mail.nih.gov